

Monthly Activity Report

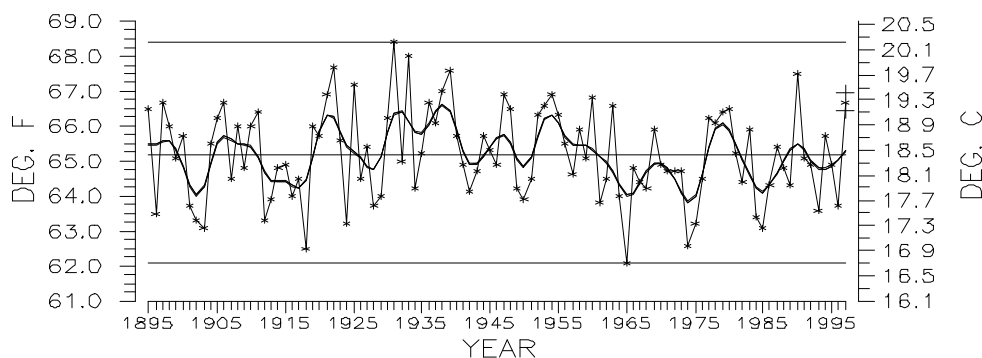
September 1997

National Climatic Data Center

A National Resource for
Climate Information



U.S. NATIONAL TEMPERATURE
SEPTEMBER, 1895-1997

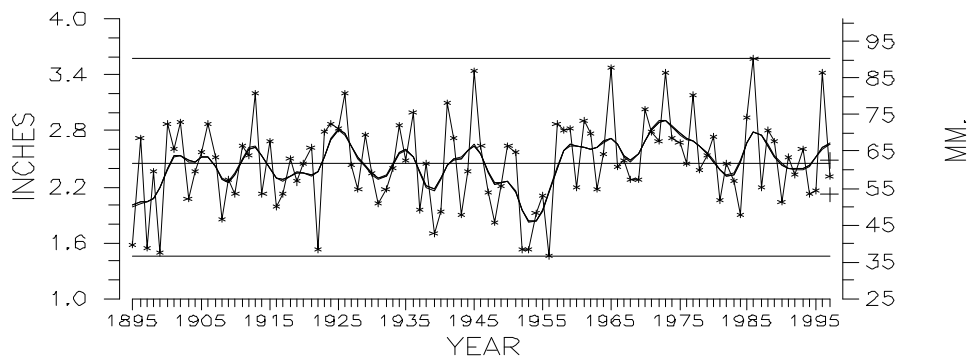


STRAIGHT HORIZONTAL LINES ARE
MAXIMUM VALUE (TOP),
LONG-TERM AVERAGE (MIDDLE),
MINIMUM VALUE (BOTTOM)

THICK SMOOTH CURVE
IS 9-POINT BINOMIAL
FILTER.

CONFIDENCE INTERVAL
FOR CURRENT YEAR IS
INDICATED BY '+'.
National Climatic Data Center, NOAA

U.S. NATIONAL PRECIPITATION
SEPTEMBER, 1895-1997



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Preliminary data for September 1997 indicate that temperature (top figure) averaged across the contiguous United States was above the long-term mean ranking as the 15th warmest September since 1895. Sixteen percent of the country was much warmer than normal while none of the country was much cooler than normal.

Preliminary data indicate that September 1997 was the 39th driest such month since 1895 (bottom figure). Nearly four percent of the country experienced much drier than normal conditions while nearly nine percent of the country was much wetter than normal.

DIRECTOR'S HIGHLIGHTS

Scientists Brief Broadcast Weathercasters on Climate Change Issues

Experts from the National Oceanic and Atmospheric Administration, together with outside experts, summarized their studies on climate change issues at a recent NOAA forum. The forum was the first in a series of ongoing efforts to keep broadcast weathercasters informed on the science of climatology and new discoveries relating to climate change. NCDC's Senior Scientist, Mr. Thomas Karl, presented a presentation on how climate patterns have changed over time. His presentation also addressed how present data show that precipitation and temperature patterns are changing across the United States and the world. Broadcast weathercasters attended a reception at the National Press Club and were invited to the White House following the science briefings to meet with President Clinton and Vice President Gore.

September Yields Mixed Signals for Customer Service

The summer seasonal decline in customer service activity appeared to end last month with a modest increase in customer requests. September 1997 data sales represented a 7 percent increase from August 1997 totals. Customer orders completed in September 1997 showed a 24 percent increase over those of the previous month. Customer telephone and facsimile requests during September 1997 posted a 7 percent and 6 percent increase respectively over August 1997 statistics. Fiscal Year 97 exhibited a 14 percent and 15 percent decline respectively in both data sales and completed orders when compared with Fiscal Year 96 customer totals.

GSAS System Implemented at NCDC

On September 30, 1997, staff from the University of Wisconsin's Space Science and Engineering Center (SSEC) completed installation of the Geostationary Satellite Archive System (GSAS) at the National Climatic Data Center (NCDC). With the implementation of this system, National Oceanic and Atmospheric Administration (NOAA) begins servicing requests for geostationary satellite data on-site, a move that should make these data more accessible to the research community.

NCDC Places New World Wide Web (WWW) System On-line

National Climatic Data Center (NCDC) recently went on-line with its new home page system. The new system has been designed to highlight NCDC's resources, to make it much easier for customers to find climate data, and to provide more information about NCDC. Included in the new system is the NOAA National Data Center's On-line Store. Approximately one hour after going on line, the first order was received and automatically entered into the Customer Order Servicing & Tracking (COST) system.

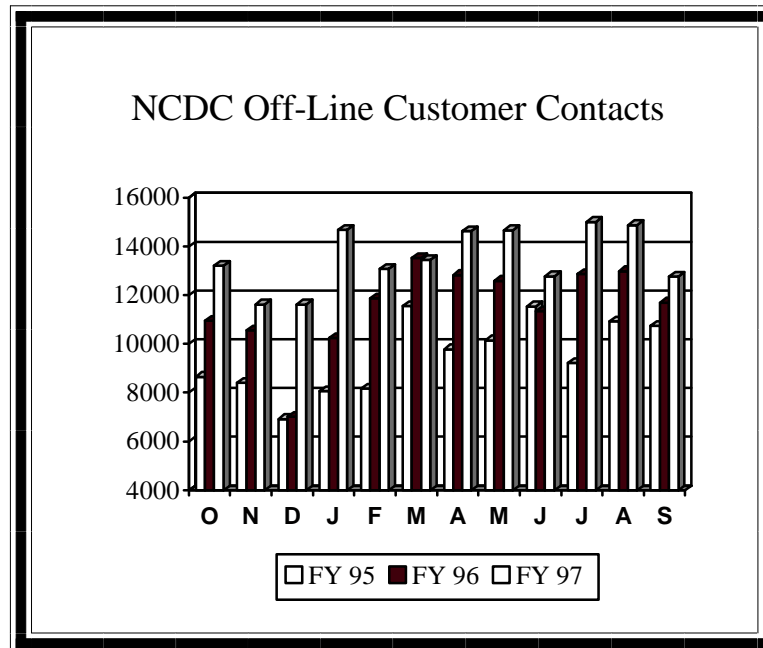
NASA/NOAA Prototype Long-Term Archive Proposal

The NASA/NOAA prototype long-term archive proposal task order has been approved and work has begun. This demonstration project will simulate direct ingest of spacecraft satellite data and the NASA Distributed Active Archive Centers' satellite products. The prototype is scheduled to be operational in December 1997.

Unisys Software Migration Project (SMP)

The National Climatic Data Center's Application Software Teams completed the system-level survey and have reviewed most of the applications programs. The detailed investigation of individual programs continues. The Center's Mainframe Functionality Survey Team began identifying utility functions needed in the open systems environment. They are surveying the market for media management products that will ensure that NCDC media will be accurately tracked and

maintained. In addition, the Center is preparing the IBM SP2 to host Unisys applications.



CLIMATE DATA AND INFORMATION SERVICES

◆ Data Base Development

NCDC Contributes to Ice Mapping Project

The U.S. Army Cold Regions Research and Engineering Laboratory (CRREL) has published "EPRI Freezing Rain Ice Mapping Project, Region 2." This report describes results for the southeastern U.S., with 50-year return period maps and tables for ice caused by freezing rain, and for 50-year return period wind-on-ice loads. These data included hourly weather observations

for National Weather Service (NWS), Federal Aviation Agency (FAA), and military sites, along with hourly precipitation data where available. This is one of several regions being analyzed for use in the American Society of Civil Engineers (ASCE) upcoming ASCE7-98 ice load guidelines for utilities and telecommunications interests. The National Climatic Data Center (NCDC) is also providing Automated Surface Observing System (ASOS) data for six sites where CRREL has installed ice racks for weighing ice during freezing rain events. The ice rack data is then correlated

with ASOS Rosemount ice detection frequencies, in hopes of developing a method for using the Rosemount to estimate ice loads.

Gateway Data Source

National Climatic Data Center (NCDC) is now receiving world wide surface marine, atmospheric sounding, upper-air, and surface climate summary data through the National Weather Service's telecommunications gateway file server. NCDC is building decoders for these data sets. Marine and climate summary data will be entered into the Marine and Monthly Climatic Data for the World processing systems.

♦ Data and Information Distribution

Information Provided for White House Briefing

The National Climatic Data Center (NCDC) provided a packet of information concerning U.S. and global weather-related disasters of the past ten years to the White House Science Advisor, Jack Gibbons, for a briefing to the Vice President.

CLIMVIS GHCN Version 2 Temperature Installed

Testing and installation for the next version of the National Climatic Data Center's Climate Visualization (CLIMVIS) has been completed. This new version allows users to create dynamic graphs from the Global Historical Climate Network (GHCN) maximum and minimum temperature enhanced data set. CLIMVIS can be found on the WWW at: <http://www.ncdc.noaa.gov>.

gov/onlineprod/drought/xmgr.html

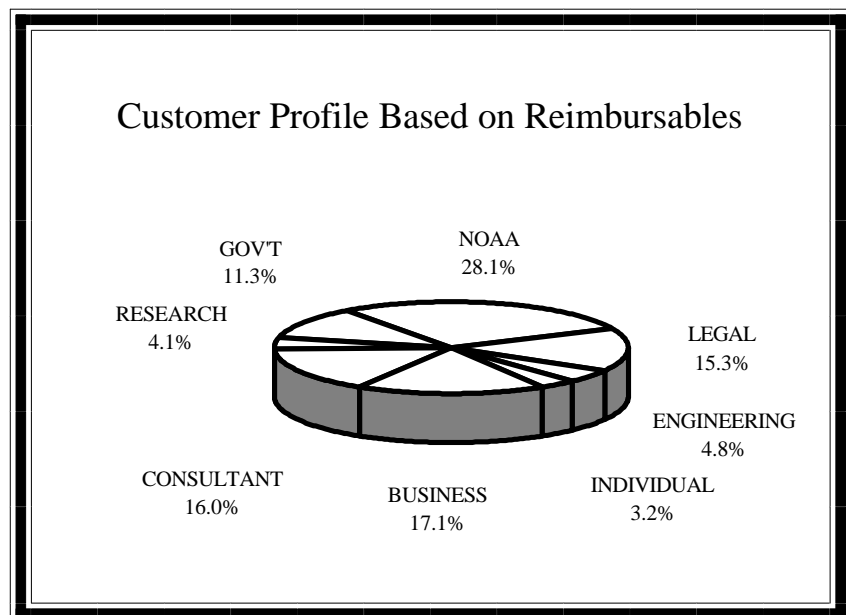
♦ NESDIS Virtual Data System (NVDS)

Customer Order Management Processing System (COMPS)

The contract modification for COMPS was awarded on September 15, 1997. Unisys contract personnel are working toward installation of Build 1.1 which will contain on-line credit card verification and ad-hoc reporting capabilities. Systems Acquisition Office (SAO) personnel plan to distribute the Build Two system/subsystem specification in early October with bids expected later that same month.

NOAA Server Version 1.5 Installed

Testing and installation for version 1.5 of NOAA Server at the NCDC mirror site has been completed. The improvements with this version include: 1) quicker metadata searching due to local metadata searches instead of searching each NOAA Server node; 2) metadata searches include all of the metadata found in the NOAA Environmental Services Data Directory in addition



to the original NOAA Server metadata; 3) an update to the free WAIS-sf-2.1.2 search engine; and 4) a fix for geospatial searches across the dateline.

NVDS Pilot

The National Climatic Data Center is coordinating the NESDIS Virtual Data System (NVDS) pilot project to demonstrate the operational components of the NVDS. Discussions on the data sets and locations to be used in the pilot have been held among the three data centers.

♦ Data Rescue

Data Rescue Activities

The National Climatic Data Center's Document Management System (DMS) arrived and training has begun. Twenty-five thousand images (surface weather observations and publications) were loaded to be used in the training exercise. The first operational data to be loaded will be 1.2 million surface weather observations.

♦ Research Customer Service Group Requests

Drinking Water Bacterial Contamination Studied

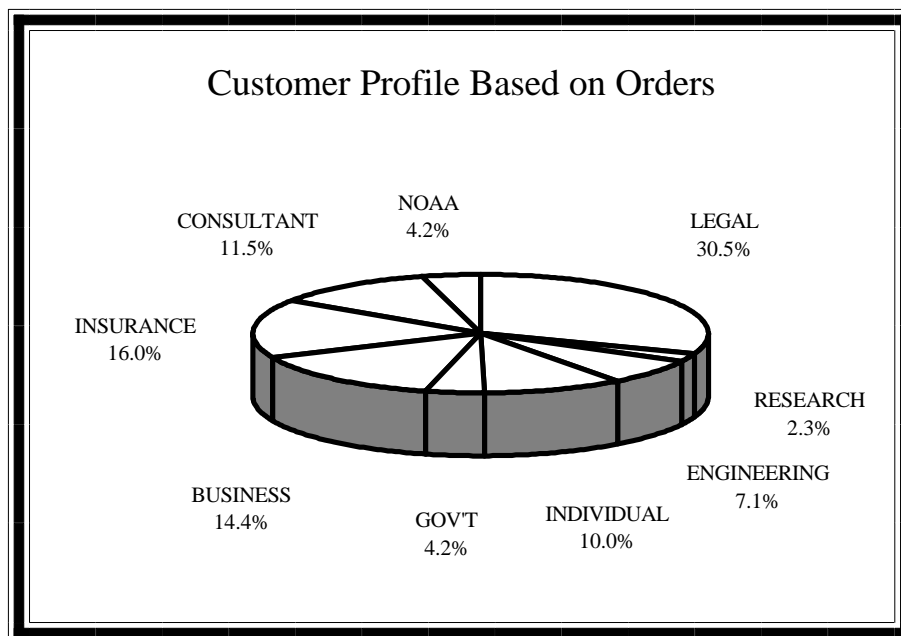
The National Climatic Data Center (NCDC) provided monthly mean temperature data for Phoenix and Tucson, Arizona, and Salt Lake City,

Utah, from 1991 through June 1997, to the U.S. Public Health Service (USPHS) of the Centers for Disease Control. The USPHS is investigating a potential correlation between monthly temperature data and total coliform contamination data from all Arizona public drinking water systems. They are particularly interested in discovering any fundamental concepts that could be extrapolated on a national basis or could affect the use of monitoring data related to public health issues.

Gridded Cloud Analysis for National Solar Observatory

The National Climatic Data Center (NCDC) provided five years of USAF Real-Time Nephelometer (RTNEPH) data for the U.S. to the National Solar Observatory in Tucson, Arizona. The RTNEPH gridded analysis uses a combination of surface observations and satellite data to model cloud data on a 40-km grid. The data will be used to evaluate potential locations for solar observatories in the U.S.

♦ Requests from News Media



Newsweek Article to Feature Hurricane Nora Satellite Image

A representative of Newsweek magazine contacted the National Climatic Data Center (NCDC) to obtain a satellite photo of recent Pacific hurricane Nora. The image is to be featured in an upcoming article discussing El Nino. NCDC provided a GOES-9 color-enhanced infrared image at 06:30 UTC on September 25, 1997, showing Nora shortly after it moved ashore near Punta Eugenia, Baja California. GOES-9 Imagery and a video loop of Hurricane Nora have also been placed on the NCDC homepage under

“Images of Hurricanes and Other Storms.”

♦ Technology Applications

Scalable Computer

The IBM Scalable Power Parallel (SP2) RISC system is operational and NCDC is migrating server functions to it. A third processing node has been ordered to provide a direct connection for the Hierarchical Data Storage System (HDSS) to the other SP2 processing nodes.

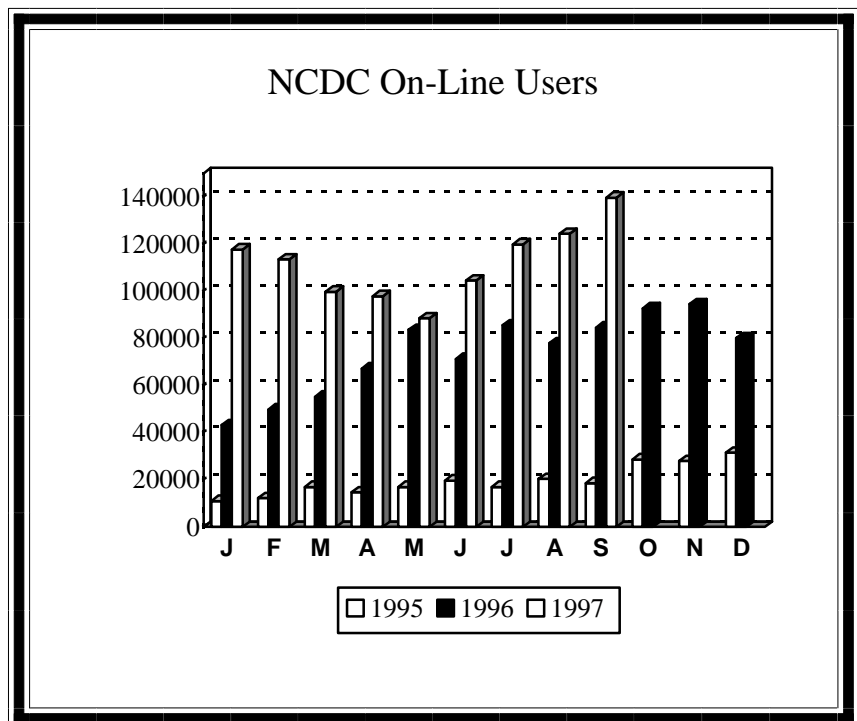
SCIENTIFIC AND PROFESSIONAL ACTIVITIES

♦ Working Groups/ Committees/ Meetings

Commercial Resources to the Mission to Planet Earth, September 26, 1997

The National Climatic Data Center attended the Rand sponsored Commercial Resources to the Mission to Planet Earth Workshop in Washington, DC. Representatives from the Office of Space and Technology and the Office of Management and Budget, as well as representatives from academia and industry attempted to identify existing or perceived barriers to providing commercially remote sensed data to

the government and providing NASA/NOAA remotely sensed data to industry.
Global Climate Observing System/JSTC



Meeting

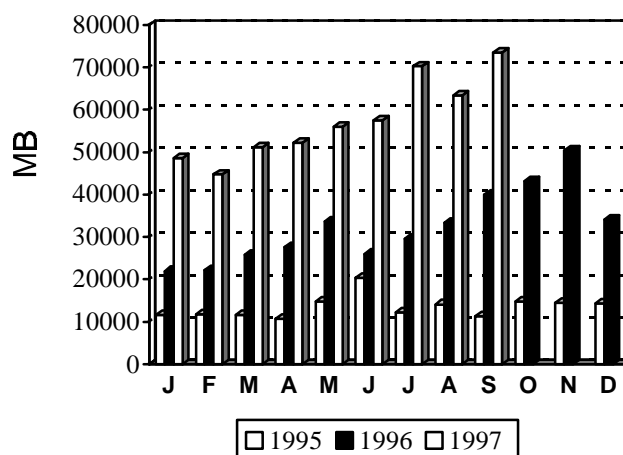
The seventh Global Climate Observing System (GCOS)/Joint Scientific and Technical Committee (JSTC) meeting was held in Eindhoven, The Netherlands. NCDC's Senior Scientist, Thomas Karl, represented the Joint Data and Information Management Panel (JDIMP). JDIMP and the JSTC discussed the GCOS Information Center that has been proposed, continuation of the climate extremes work, and the development of a template for a GCOS/Global Ocean Observing System (GOOS)/Global Terrestrial Observing System (GTOS) high-level metadata directory for data-set registration. NCDC has agreed to archive the GCOS Global Surface Network (GSN) and the Global Upper Air Network (GUAN). Deutscher Wetterdienst will monitor the GSN precipitation data and NCDC will monitor the GSN temperature data for quality, homogeneity and completeness.

♦ Visitors

Chinese Scientists Visit NCDC

Mr. Song Lianchun, Director, and Mr. Qin Xiangshi, Deputy Director, of the Chinese National Meteorological Center visited the National Climatic Data Center (NCDC) September 23-24, 1997. Their main areas of interest were computer and mass storage systems, quality control procedures, building a long-term data series used in climate change studies, data exchange, and user services. The visitors received a general overview of the Center and its operation, as well as briefings in each of NCDC's staff and

NCDC Data Downloaded



division areas.

NWS Office of Hydrology Visits NCDC

Messrs. Benjamin Weiger and Larry Cedrone of the National Weather Service (NWS) Office of Hydrology visited the National Climatic Data Center (NCDC) on September 23, 1997, to review Environmental Sciences Data Information Management (ESDIM) project results and discuss the Universal Rain Gauge supplemental project with personnel in the Center's Operations and Support Division.

NCDC Assists FEMA

The National Climatic Data Center (NCDC), National Weather Service (NWS), and Federal Emergency Management Agency (FEMA) discussed the NCDC-led effort to produce extreme snowfall statistics for use by FEMA in the

designation of disaster areas. FEMA has issued a statement asserting that beginning with the upcoming snow season, disaster declarations for record and near-record snowstorms will be based on official government records.

Air Force Combat Climatology Center (AFCCC)

As part of the AFCCC move to Asheville, the National Climatic Data Center continues to provide tours and information to newly arrived AFCCC members. The transfer of all AFCCC functions and personnel should be complete in the summer of 1998.

♦ Interactions with NOAA Line Offices

Hourly Data Provided to Atmospheric Research Laboratory (ARL)

The National Climatic Data Center (NCDC) provided the latest two years of hourly surface data from Washington's Dulles Airport to NOAA's

ARL in Research Triangle Park, North Carolina. The ARL is conducting research on the effects of meteorology on indoor air pollution in the Washington, D.C., area and required the data to assist in their study.

NEXRAD Radar Data Used in Space Shuttle Climatology

Researchers at the NOAA/National Weather Service (NWS) Cooperative Institute for Applied Meteorological Studies at Texas A&M University obtained Next Generation Weather Radar (NEXRAD) Level II radar data for the Melbourne, Florida, site for selected dates back to 1992. The researchers are using the data in a research project involving the prediction of thunderstorms at the Kennedy Space Center in Florida in support of the space shuttle program.

EMPLOYEE ACTIVITIES

♦ EEO and Community Outreach

Asheville Bicentennial Home Town Reunion - Heritage 50 Exhibit

In recognition of Asheville's 200th Birthday, NCDC staffed an informational exhibit as part of "A Home Town Reunion" celebration Saturday, September 20, 1997. After the parade and opening ceremonies, visitors stopped by the NCDC exhibit to obtain information on the Center's Weather and Science Museum and El Nino.

♦ Training

Diversity Symposium

The National Climatic Data Center sent 10 participants to NOAA's Diversity Symposium held in Washington, DC, on September 24-25, 1997. The symposium commenced each day with opening remarks from Mr. Greg Withee. NOAA's upper management was also on hand to emphasize the fact that NOAA has a vision to create an inclusive and open work environment.

NCDC Data Volumes

